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EXAMINER	
NGUYEN, ALLEN H	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/611,737	ROBINS, DAVID R.	
	Examiner	Art Unit	
	Allen H. Nguyen	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) *11-28, 32-35, 38-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,29-31,36 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/26/2004 and 05/11/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 11-28, 32-35, 38-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 07/30/2007.

2. Applicant's election with traverse of the restriction in the reply filed on 07/30/2007 is acknowledged. The traverse is on the ground(s) that there are no serious burden on the examiner for examining all species. This is not found persuasive because 1) it requires different search query for different invention. For example, claim 1 requires the search query of "storing images in RAMdisk," claim 11 requires different search query of "estimate amount of time." 2) The prior art used for rejecting the elected species can not be used to reject the non-elected species. The examiner requires further search to determine whether there are other prior art directed to the non-elected species.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 04/26/04 and 05/11/05 have been considered by the examiner.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 7, 8, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Naito et al. (US 6,628,417).

Regarding claim 1, Naito '417 discloses a computer-implemented method for printing a plurality of digital images, the method comprising steps of:

(A) receiving the plurality of images over a communications bus (i.e., the received print image data is transferred to the print server designated by the client via the communication link 130; see col. 7, lines 28-30, fig. 1);

(B) storing the plurality of digital images in a RAMdisk (i.e., an original image to be registered is loaded from a removable disk that stores the image onto the RAM 2002, print server; see col. 32, lines 9-12);

(C) retrieving the plurality of digital images from the RAMdisk (i.e., a function of sending a print image retrieval request to the image server 111 or print server 121 where RAM 2002 serves as an execution area and data area of the program during operation; see col. 8, lines 24-26);

(D) printing the plurality of digital images on output media (i.e., the received print image data is transferred to the print server designated by the client, thus printing the image; see col. 7, lines 28-29).

Regarding claim 2, Naito '417 discloses the method, wherein steps (A)-(D) are performed by a print server, and wherein the method further comprises a step of:

(E) at a print client, transmitting the plurality of digital images to the server over the communications bus (i.e., the received print image data is transferred to the print server designated by the client via the communication link 130; see col. 7, lines 28-30, fig. 1).

Regarding claim 3, Naito '417 discloses the method,

wherein the step (B) comprises a step of storing the plurality of digital images in the RAMdisk in the order in which the plurality of digital images are to be printed (i.e., the print original image storage device 716 stores high-resolution original image files to be printed; see col. 14, lines 54-57, fig. 7),

wherein the step (C) comprises a step of retrieving the plurality of digital images from the RAMdisk in the order in which the plurality of digital images are to be printed (i.e., reference numeral 3902 denotes a step of retrieving the data storage examples of the print images which are connected to the print servers 121, 122, . . . , 12N, and print in accordance with a print order; see col. 16, lines 58-62, figs. 1, 39).

Regarding claim 4, Naito '417 discloses the method, wherein the step (C) further comprises a step of deleting each of the plurality of digital images after it is retrieved from the RAMdisk (i.e., upon receiving the print completion message from the print server 121, the center server 102 deletes the print images retrieved for that print order; see col. 31, lines 1-4).

Regarding claim 7, Naito '417 discloses a system for printing a plurality of digital images, the system comprising:

a communications bus (fig. 1, network link 130);

reception means for receiving the plurality of images over a communications bus (i.e., reception means for receiving a print request including a print size from the client via the network link 130; see col. 1, line 35, fig. 1);

storage means for storing the plurality of digital images in a RAMdisk (i.e., the image retrieval means 405 has a function of determining the storage location of a print original image required for printing in the order management table 416, and loading an order progress management means 406 from the HDD 1009 and mapping and activating it on the RAM 1002 when all print images required for a print order have been retrieved; see col. 8, lines 21-37, fig. 4);

retrieval means for retrieving the plurality of digital images from the RAMdisk (i.e., an image retrieval means 405 from the HDD 1009 or the like and maps and activates it on the RAM 1002 to retrieve an image used in the print order; see col. 7, lines 54-57);

printing means for printing the plurality of digital images on output media (i.e., a print image transmission means 602 is an application program having a function of analyzing a print image transmission request of an output destination printer, and recording paper size; see col. 11, lines 14-17, fig. 6).

Regarding claim 8, Naito '417 discloses the system, wherein the system further comprises a print server (fig. 1, Print Server 121), wherein the print server comprises the reception means (i.e., the local transmission/reception control means 703 sending a transmission/reception start request to the center server 102 via the NETIF 2004; see col. 13, lines 3-11), the storage means (i.e., the print original image storage device 716 stores high-resolution original image files to be printed; see col. 14, lines 54-57, fig. 7), the retrieval means (i.e., reference numeral 3902 denotes a step of retrieving the data storage examples of the print images which are connected to the print servers 121, 122, . . . , 12N, and print in accordance with a print order; see col. 16, lines 58-62, figs. 1, 39, and the printing means (i.e., a print image transmission means 705 is an application program which is equivalent to the print image transmission means 602 in the image server 111; see col. 13, lines 45-47, fig. 7), and wherein the system further comprises a print client (fig. 1, Client Computer 101), the print client comprising transmission means for transmitting the plurality of digital images to the print server over the communications bus (fig. 7, an order output management means 701).

Regarding claim 9, Naito '417 discloses the system, wherein the storage means comprises means for storing the plurality of digital images in the RAMdisk in the order in which the plurality of digital images are to be printed (i.e., it noted that a RAM which is used as a main memory of the CPU 2001 of print server. Therefore, the print original image storage device 716 of the print server stores high-resolution original image files to be printed; see col. 14, lines 54-57, fig. 7), and wherein the retrieval means comprises means for retrieving the plurality of digital images from the RAMdisk in the order in which the plurality of digital images are to be printed (i.e., it is noted that a RAM 2002 which is used as a main memory of the CPU 2001, and an execution are and data area. Therefore, reference numeral 3902 denotes a step of retrieving the data storage examples of the print images which are connected to the print server 121, and print in accordance with a print order; see col. 16, lines 58-62, figs. 1, 39).

6. Claims 29, 31, 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Salgado et al. (US 5,970,224).

Regarding claim 36, Salgado '224 discloses a system for printing a plurality of digital images (a plurality of jobs in a queue of a multifunctional printing system, col. 4, lines 28-29), the system comprising:

first image processing means (a multifunctional printing system 10, fig. 2) for performing image processing on a first set of images including fewer than all of the digital images (processing at least a portion of the first job, col. 3, line 64)

to produce a first plurality of processed images (a job memory for storing a first set of image data corresponding with the first job, col. 4, lines 31-33);

print engine activation means (a video control module 16, fig. 2) for activating a print engine to print the first plurality of processed images (communicating with a scanner 18 and a printer 20, col. 5, lines 63-64);

first printing means (a multifunctional printing system 10, fig. 2) for printing the first plurality of processed images using the print engine (i.e., the multifunctional printing system includes a controller for facilitating placement of the jobs into the queue with the first job being developed at a first service; see col. 3, lines 50-65).

Regarding claim 29, claim 29 is the method claim of device claim 36, respectively. Therefore, method claim 29 is rejected for the reason given in device claim 36.

Regarding claim 31, Salgado '224 discloses the method,

wherein steps (A) is performed by a print client (Network Service Module 14, fig. 2),

wherein steps (B)-(C) are performed by a print server (The printing system 10, col. 10, lines 1-3, fig. 2), and wherein the method further comprises a step of:

(D) at the print client, transmitting the first plurality of processed images to the server over a communications bus (i.e., a network is used to generate the job, a stream of data, including various job related instructions and image data,

expressed in terms of a page description language is captured, decomposed and stored for printing; see col. 10, lines 1-3, fig. 6).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 5- 6, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al. (US 6,628,417) in view of Goldberg et al. (US 6,762,855).

Regarding claim 5, Naito '417 does not explicitly show the method, wherein the step (D) comprises a step of printing the plurality of digital images using a print engine without stopping and restarting the print engine.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Goldberg '855. In particular, Goldberg '855 teaches the method, wherein the step (D) comprises a step of printing the plurality of digital images using a print engine without stopping and restarting the print engine (i.e., assuring the supply of sufficient data to the print engine so the engine can continue to run efficiently without stopping; see col. 2, lines 58-60).

In view of the above, having the system of Naito '417 and then given the well-established teaching of Goldberg '855, it would have been obvious to one

having ordinary skill in the art at the time of the invention was made to modify the system of Naito '417 as taught by Goldberg '855 to include: the method, wherein the step (D) comprises a step of printing the plurality of digital images using a print engine without stopping and restarting the print engine, since Goldberg '855 stated in col. 1, lines 6+ that such a modification would ensure the supply of sufficient data to the print engine of a high speed printing system so the engine can operate continuously and efficiently.

Regarding claim 6, Naito '417 discloses a computer-implemented method for printing a plurality of digital images, the method comprising steps of:

(A) at a print client, transmitting the plurality of digital images to a print server over a communications bus (i.e., the client computer 101 has a function of viewing information such as images and the like stored in a center server 102 via the network; see col. 4, lines 28-30, fig. 1);

(B) at a print server, receiving the plurality of images over the communications bus (i.e., reference numeral 2004 denotes a network interface (NETIF) which controls data transfer with other information processing apparatuses such as the center server 101 and the like via the network; see col. 6, lines 24-27, figs. 1, 3);

(C) at the print server, storing the plurality of digital images in a RAMdisk in the order in which the plurality of digital images are to be printed (i.e., it is noted that a RAM 2002 which is used as a main memory of the CPU 2001 of print server. Therefore, the print original image storage device 716 of the print

server stores high-resolution original image files to be printed; see col. 14, lines 54-57, fig. 7);

(D) at the print server, retrieving the plurality of digital images from the RAMdisk in the order in which the plurality of digital images are to be printed (i.e., it is noted that a RAM 2002 which is used as a main memory of the CPU 2001, and an execution are and data area. Therefore, reference numeral 3902 denotes a step of retrieving the data storage examples of the print images which are connected to the print servers 121, 122, . . . , 12N, and print in accordance with a print order; see col. 16, lines 58-62, figs. 1, 39);

(E) at the print server, deleting the plurality of digital images after they are retrieved from the RAMdisk (i.e., upon receiving the print completion message from the print server 121, the center server 102 deletes the print images retrieved for that print order; see col. 31, lines 1-4);

It is noted that Naito '417 does not explicitly show the print server, printing the plurality of digital images on output media using a print engine without stopping and restarting the print engine.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Goldberg '855. In particular, Goldberg '855 teaches the print server, printing the plurality of digital images on output media using a print engine without stopping and restarting the print engine (i.e., assuring the supply of sufficient data to the print engine so the engine can continue to run efficiently without stopping; see col. 2, lines 58-60).

In view of the above, having the system of Naito '417 and then given the well-established teaching of Goldberg '855, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Naito '417 as taught by Goldberg '855 to include: the print server, printing the plurality of digital images on output media using a print engine without stopping and restarting the print engine, since Goldberg '855 stated in col. 1, lines 6+ that such a modification would ensure the supply of sufficient data to the print engine of a high speed printing system so the engine can operate continuously and efficiently.

Regarding claim 10, Naito '417 does not disclose the system, wherein the printing means comprises means for printing the plurality of digital images using a print engine without stopping and restarting the print engine.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Goldberg '855. In particular, Goldberg '855 teaches the system, wherein the printing means comprises means for printing the plurality of digital images using a print engine without stopping and restarting the print engine (i.e., assuring the supply of sufficient data to the print engine so the engine can continue to run efficiently without stopping; see col. 2, lines 58-60).

In view of the above, having the system of Naito '417 and then given the well-established teaching of Goldberg '855, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Naito '417 as taught by Goldberg '855 to include: the system, wherein

the printing means comprises means for printing the plurality of digital images using a print engine without stopping and restarting the print engine, since Goldberg '855 stated in col. 1, lines 6+ that such a modification would ensure the supply of sufficient data to the print engine of a high speed printing system so the engine can operate continuously and efficiently.

9. Claims 30, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salgado et al. (US 5,970,224) in view of Goldberg et al. (US 6,762,855).

Regarding claim 37, Salgado '224 discloses the system, further comprising:

second image processing means (The multifunctional printing system 10, fig. 2) for performing image processing on a second set of images including fewer than all of the digital images to produce a second plurality of processed images (i.e., the system includes a controller for facilitating placement of the jobs into the queue with the first job being developed at a first service, the second job being developed at a second service and the third job being developed at a third service; see col. 4, lines 5-10);

It is noted that Salgado '224 does not show second printing means for printing the second plurality of processed images without stopping and reactivating the print engine.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Goldberg '855. In particular, Goldberg '855 teaches second

printing means for printing the second plurality of processed images without stopping and reactivating the print engine (i.e., assuring the supply of sufficient data to the print engine so the engine can continue to run efficiently without stopping; see col. 2, lines 58-60).

In view of the above, having the system of Salgado '224 and then given the well-established teaching of Goldberg '855, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Salgado '224 as taught by Goldberg '855 to include: second printing means for printing the second plurality of processed images without stopping and reactivating the print engine, since Goldberg '855 stated in col. 1, lines 6+ that such a modification would ensure the supply of sufficient data to the print engine of a high speed printing system so the engine can operate continuously and efficiently.

Regarding claim 30, claim 30 is the method claim of device claim 37, respectively. Therefore, method claim 30 is rejected for the reason given in device claim 37.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kato (US 2002/0049837) discloses printing system and method of setting same, information processing apparatus and storage medium.

Tanaka et al. (US 2005/0069107) discloses image accumulating apparatus, image accumulation support apparatus, image accumulation system, image control apparatus, image storage apparatus.

Calaway (US 2002/0012134) discloses method for processing an annotated digital photograph using a composite image.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen H. Nguyen whose telephone number is 571-270-1229. The examiner can normally be reached on M-F from 9:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571)-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KING Y. POON
SUPERVISORY PATENT EXAMINER

AN

09/28/2007